

REMARKS

This is in response to the Office Action mailed on July 20, 2006. Claims 1-23 and 25-27 were pending in that action. All claims were rejected. With the present response, all claims remain unchanged amended. Of the pending claims, claims 1 and 12 are independent. The remaining claims are dependent thereon. Reconsideration and allowance of all pending claims are respectfully solicited in light of the following comments.

The primary reference being cited by the Examiner in all rejections of the pending claims is U.S. Pat. No. 6,859,919 (hereinafter referred to as "the Deffler reference"). It is respectfully pointed out that this reference pertains to an object modeling tool. More specifically, the reference seems to describe an apparatus for building a modeling tool. The apparatus includes means for implementing a collection of so-called "semantics" that are applied against transactions that change objects and properties included in a model. Changes to objects and properties that violate the respective semantics are undone.

At first glance, the application of "semantics" as described in the Deffler reference does seem similar to the features Applicant's pending claims. However, a closer examination of the Deffler reference reveals that the described process of applying "semantics" to monitor changes to objects and properties affects only the architecture of an object model and has nothing to do with any validation of data values stored in a corresponding database. Notably, no database appears in the system architecture shown in FIG. 2 of the Deffler reference.

The Office Actions issued so far in the present case have repeatedly identified "accessor objects" described, for example, at col. 10, ll. 20-42 of the Deffler reference. The described accessor objects do seem to have some level of

functionality related to manipulation of a value associated with a property. However, nothing in the Deffler reference indicates that functionality involves application of the so-called "semantics" to somehow validate data in a database system that corresponds to a subject object model.

With these general comments in mind, Applicant will now turn to a more detailed explanation of patentable differences between the pending claims and the cited references.

Beginning on page 4 of the Office Action, the Examiner rejected claims 1, 6-12, 14-17, and 20-22 under 35 U.S.C. § 102(e) as being anticipated by the Deffler reference. Independent claim 1 is directed to a computer storage medium having instructions for validating data in a database system. In response to this element, the Examiner points to the Deffler reference at col. 3, lines 30-55. Notably; however, this cited passage simply describes object modeling functionality and has nothing to do with validating data in a database system.

Another element of claim 1 includes applying constraint information so as to ascertain the validity of data in a database system associated with a property of an object. In response to this claim element, the Examiner points to the Deffler reference at col. 9, lines 3-20. However, this passage simply describes a so-called "modeling rule" that effectively places limitations on object model construction and/or manipulation. There is no description of any limitations placed on manipulations of database data.

The Examiner also points out the so-called accessor objects described at col. 10, lines 25-43. The Examiner argues that the described accessor object is equivalent to Applicant's claimed "second object." First of all, Applicant still fails to see how the accessor object as described could be construed as being a property instantiated as an object. Further, the Deffler

reference neither teaches or suggests application of a "modeling rule" or "semantics" to a property of an accessor object. Thus, the Deffler reference lacks application of constraint information so as to ascertain validity of data in a database system. Thus, for at least these reasons, the Deffler reference fails to teach or suggest the elements of claim 1.

It is respectfully submitted that dependent claims 6-11 are in allowable form at least for the same reasons discussed above in relation to their affiliated independent claim 1. However, this is not to say that claims 6-11 do not individually recite elements that are patentably distinguishable from the cited Deffler reference.

For example, dependent claim 6 defines an additional step of "setting the value of [a] property if the constraint information is met." In response to this element, the Examiner points to the Deffler reference at col. 5, lines 15-25. This passage describes an application of "semantics" to manipulations that occur on the object model level. The Examiner also points to the accessor objects described at col. 10, 11. 23-35. Again, there nothing in the reference to indicate application of "semantics" or a "modeling rule" so as to affect changes made to a database value associated with a property of an object. Semantics are described by Deffler as a means for restricting changes on an object model level. For at least these reasons, it is respectfully submitted that claim 6 is patentably distinguishable from the cited reference based on the merits of its own limitation. Other, if not all, of claims 7-11 are similarly distinguishable based on individual merit. Claim 6 is discussed herein specifically only to serve as an example of an independently allowable dependent claim.

Independent claim 12 pertains to a framework for validating data in a database system. The Examiner again seems

to be confusing the constraint changes on an object model level with the claimed process for validating data in a database system. Claim 12 includes an element of identifying constraint information to be used for ascertaining the validity of data in a database system. In response, the Examiner again points to col. 5, lines 10-50. However, these passages simply described the application of limitations on object model construction and manipulation. There is no teaching or suggestion of any policing of the validity of data in a database system. Thus, for reasons similar to those discussed above in relation to claim 1, claim 12 is believed to be in allowable form.

Further, dependent claims 13-17 and 20-22 are believed to be in allowable form at least for the same reasons outlined above in association with their affiliated independent claim 12. This is not to say that these dependent claims do not independently recite features that are worthy of patent protection based on their own merits.

For example, claim 15 defines a process of issuing a notification event when a value of a property is changing. Thus, the event is triggered based on an occurrence of action at the database level. In response to claim 15, the Examiner cites the Deffler reference at col. 5, ll. 48-55. A close examination of this passage; however, reveals that what is actually being discussed is a action related to a discreet event involving changes that occur at the object model level. Essentially, semantics are triggered when the model changes. Claim 15 is but one example of a dependent claim that is independently distinguishable from the cited reference. Other, if not all of, the rejected dependent claims are similarly distinguishable.

On page 11 of the Office Action, the Examiner rejected claims 2-5 and 18-19 under 35 U.S.C. § 103(a) as being unpatentable over the Deffler reference in view of U.S. Pat. Pub.

No. 2003/0191731 (hereinafter referred to "the Stewart reference"). On page 16 of the Office Action, the Examiner rejected claim 13 under 35 U.S.C. 103(a) as being unpatentable over the Deffler reference in view of U.S. Pat. No. 6,732,331 (hereinafter referred to as "the Alexander reference"). Also on page 16 of the Office Action, the Examiner rejected claims 23 and 25 under 35 U.S.C. § 103(a) as being unpatentable over the Deffler reference in view of U.S. Pat. No. 6,681,383 (hereinafter referred to as "the Pastor reference"). On page 18 of the Office Action, the Examiner rejected claims 26 and 27 under 35 U.S.C. § 103 (a) as being unpatentable over the Deffler reference, the Pastor reference, and the Stewart reference.

It is respectfully submitted that all of the claims rejected under 35 U.S.C. § 103 are patentably distinguishable from the references cited against them at least for the same reasons discussed above in relation to the affiliated independent claims. In other words, the additional references cited in combination fail to remedy the inability of the Deffler reference to teach or suggest the elements of the independent claims. Thus, allowance is believed to be warranted for at least this reason.

This is not to say that the dependent claims rejected under §103 do not themselves recite limitations that are independently patentably distinguishable. Many, if not all, of the dependent claims do cite such elements.

In summary, for at least the reasons noted above, it is respectfully submitted that claims 1-23 and 25-27 are in condition for allowance. Reconsideration and favorable action are respectfully solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.



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Respectfully submitted,

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